

#### CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@ct.gov Internet: ct.gov/csc

February 29, 2008

Kenneth C. Baldwin, Esq. Robinson and Cole LLP 280 Trumbull Street Hartford, CT 06103-3597

RE:

**DOCKET NO. 345** - MCF Communications bg, Inc. and Cellco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located off Exeter Drive in Sterling, Connecticut.

Dear Attorney Baldwin:

By its Decision and Order dated February 14, 2008, the Connecticut Siting Council (Council) granted a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located off Exeter Drive, Sterling, Connecticut.

Enclosed are the Council's Certificate, Findings of Fact, Opinion, and Decision and Order.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/cm

Enclosures (4)





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#### CERTIFICATE

OF

# ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED DOCKET NO. 345

Pursuant to General Statutes § 16-50k, as amended, the Connecticut Siting Council hereby issues a Certificate of Environmental Compatibility and Public Need to MCF Communications bg, Inc. and Cellco Partnership d/b/a Verizon Wireless for the construction, maintenance and operation of a wireless telecommunications facility located off Exeter Drive, Sterling, Connecticut. This Certificate is issued in accordance with and subject to the terms and conditions set forth in the Decision and Order of the Council on February 14, 2008.

Daniel F. Caruso, Chairman

By order of the Council,

February 14, 2008





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February 29, 2008

TO:

Classified/Legal Supervisor

345071022

The Hartford Courant

285 Broad St.

Hartford, CT 06115

Classified/Legal Supervisor

345071022 Norwich Bulletin 66 Franklin Street Norwich, CT 06360

FROM:

Carriann Mulcahy, Secretary

RE:

**DOCKET NO. 345 - MCF** Communications bg, Inc. and Cellco Partnership

d/b/a Verizon Wireless application for a Certificate of Environmental

Compatibility and Public Need for the construction, maintenance and operation

of a telecommunications facility located off Exeter Drive in Sterling,

Connecticut.

Please publish the attached notice as soon as possible, but not on Saturday, Sunday, or a holiday.

Please send an affidavit of publication and invoice to my attention.

Thank you.

CM





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#### NOTICE

Pursuant to General Statutes § 16-50p (d), the Connecticut Siting Council (Council) announces that, on February 14, 2008, the Council issued Findings of Fact, an Opinion, and a Decision and Order approving an application from MCF Communications bg, Inc. and Cellco Partnership d/b/a Verizon Wireless for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located off Exeter Drive, Sterling, Connecticut. This application record is available for public inspection in the Council's office, Ten Franklin Square, New Britain, Connecticut





### CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@ct.gov Internet: ct.gov/csc

February 29, 2008

TO:

Parties and Intervenors

FROM:

S. Derek Phelps, Executive Director

RE:

DOCKET NO. 345 - MCF Communications bg, Inc. and Cellco Partnership

d/b/a Verizon Wireless application for a Certificate of Environmental

Compatibility and Public Need for the construction, maintenance and operation

of a telecommunications facility located off Exeter Drive in Sterling,

Connecticut.

By its Decision and Order dated February 14, 2008, the Connecticut Siting Council granted a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located off Exeter Drive, Sterling, Connecticut.

Enclosed are the Council's Findings of Fact, Opinion, and Decision and Order.

SDP/cm

Enclosures (3)

c: Kenneth C. Baldwin, Esq., Robinson and Cole State Documents Librarian



DOCKET NO. 345 - MCF Communications bg, Inc. and }
Cellco Partnership d/b/a Verizon Wireless application for a
Certificate of Environmental Compatibility and Public Need for }
the construction, maintenance and operation of a telecommunications facility located off Exeter Drive in }
Sterling, Connecticut.

Connecticut

Council

#### Findings of Fact Introduction

- 1. MCF Communications bg, Inc. (MCF) and Cellco Partnership d/b/a Verizon Wireless (Cellco) (collectively, the Applicant), in accordance with provisions of Connecticut General Statutes (CGS) § 16-50g through 16-50aa, applied to the Connecticut Siting Council (Council) on August 24, 2007 for the construction, operation, and maintenance of a wireless telecommunications facility at Exeter Drive, in Sterling, Connecticut. (Applicant 1, p. 1)
- 2. MCF is a stock corporation based in the Commonwealth of Massachusetts with offices located in North Andover, Massachusetts. MCF develops, owns, manages and markets communications facilities throughout New England. Cellco is a Delaware Partnership with an office located in East Hartford, Connecticut. (Applicant 1, p. 4)
- 3. Cellco is licensed by the Federal Communications Commission to operate a wireless telecommunications system in the State of Connecticut. Operation of wireless telecommunications systems and related activities are Cellco's sole business in Connecticut. (Applicant 1, p. 4)
- 4. The party in this proceeding is the Applicant. (Transcript 1- 3:00 p.m. [Tr. 1], p.1)
- 5. The purpose of the proposed facility is to provide service to coverage gaps identified by Cellco along Route 14 and Route 14A, as well as local roads in the central portion of the Town of Sterling (Town). (Applicant 1, pp. 1-2)
- 6. Pursuant to General Statutes § 16-50m, the Council, after giving due notice thereof, held a public hearing on December 6, 2007, beginning at 3:00 p.m. and continuing at 7:00 p.m. at the Robert P. Jordan Community Center, 50 Main Street, Sterling, Connecticut. (Council's Hearing Notice dated October 23, 2007; Tr. 1, p. 2; Transcript 2 7:00 p.m. [Tr. 2], p. 2)
- 7. The Council and its staff conducted an inspection of the proposed site on December 6, 2007, beginning at 2:00 p.m. During the field inspection, the applicant flew a red balloon at the proposed site to simulate the height of the proposed tower. Weather conditions during the field review were sunny and clear, but blustery. During the field review, the balloon reached a height of 140 feet above ground level (agl), but did not maintain that height for the entire flight due to the wind. The balloon was aloft from 8:00 a.m. to 5:00 p.m. for the convenience of the public. (Council's Hearing Notice dated October 23, 2007; Tr. 1, p. 21)
- 8. On November 15, 2007, the Applicant placed a four-foot by six-foot sign on the subject parcel adjacent to the proposed access to the site. The sign contained information regarding the tower proposal, the public hearing, and contact information for the Council. (Tr. 1, p. 22)
- 9. Pursuant to CGS § 16-501 (b), public notice of the application was published in the Norwich Bulletin on August 21 and 22, 2007. (Applicant 1, p. 5; Applicant 2)

- 10. Pursuant to General Statute § 16-50l(b), notice of the application was provided to all abutting property owners by certified mail. Notice was unclaimed by one abutter, Sterling Hills Estates Homeowners. A second notice was sent to Sterling Hills Estates at a different address. The receipt for this second mailing was returned indicating that this abutter did receive notice. (Applicant 3, response 2)
- 11. Pursuant to CGS § 16-50l (b), the Applicant provided notice to all federal, state and local officials and agencies listed therein. (Applicant 1, Attachment 2)
- 12. On October 12, 2001, MCF filed an application with the Council for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance, and operation of a 130-foot tower to accommodate Sprint PCS. This tower was to be located on Town property approximately 940 feet to the southeast of the proposed tower location. The proceeding was designated as Docket No. 216. (Applicant 1, p. 10)
- 13. This tower was approved by the Council on April 3, 2002. Cellco did not participate in that proceeding. The tower was never constructed, and the Certificate expired. (Applicant 1, p. 10; Tr. 1, p. 23)
- 14. Following the expiration of the Docket No. 216 Certificate, the Town asked MCF to modify its land lease for the proposed tower site and move the leased area to the proposed site. (Applicant 1, p. 10; Tr. 1, p. 13)

#### **State Agency Comment**

- 15. Pursuant to General Statutes § 16-50j (h), on October 23, 2007 and December 11, 2007, the following State agencies were solicited by the Council to submit written comments regarding the proposed facility; Department of Environmental Protection (DEP), Department of Public Health (DPH), Council on Environmental Quality (CEQ), Department of Public Utility Control (DPUC), Office of Policy and Management (OPM), Department of Economic and Community Development (DECD), and the Department of Transportation (DOT). (Record)
- 16. The Council received responses from the DOT's Bureau of Engineering and Highway Operations dated November 27, 2007, and the DPH Drinking Water Section dated November 7, 2007. Neither agency had any comments. (DOT Comments dated November 27, 2007; DPH Comments dated November 7, 2007)

#### **Municipal Consultation**

- 17. MCF notified the Town of this proposal on July 13, 2007 by sending a technical report to First Selectman Russell Gray. (Applicant 1, p. 19)
- 18. By letter dated July 16, 2007, First Selectman Gray waived the 60-day review period and expressed his support for the proposed facility. (Applicant 1, Attachment 10)
- 19. First Selectman Gray made a limited appearance statement at the December 6, 2007 proceeding by noting his concerns about the lack of wireless telecommunications service in two Town villages: Sterling Village and Oneco. He further stated that approximately one-half of the town is currently without service. (Tr. 1, pp. 7-8)

- 20. Second Selectman Neil Cook made a limited appearance statement at the December 6, 2007 proceeding by noting his concerns about the inability to reach emergency services due to the lack of wireless telecommunications service in the area. Mr. Cook would also be amenable to a taller tower if necessary, up to 160 feet tall. (Tr. 1, pp. 8-9, 41)
- 21. Dr. Richard Spurling, Superintendent of Schools in Sterling, made a limited appearance statement at the December 6, 2007 proceeding by noting his concerns about the ability to communicate with the school buses in the event of an emergency. (Tr. 1, pp. 9-10)
- 22. David Shippee, Second Assistant Chief (fireman and EMT), made a limited appearance statement at the December 6, 2007 proceeding by noting his concerns about how residents involved in accidents have had difficulty making calls to emergency services due to the lack of service. (Tr. 1, pp. 10-11)
- 23. Sharon Chviek, Economic Development Coordinator for Sterling, made a limited appearance statement at the December 6, 2007 proceeding and endorsed the comments of her colleages. Ms. Chviek also submitted a petition containing signatures from residents, business owners, emergency services workers, etc. in support of the proposed tower. Ms. Chviek considers cell phones to be potentially life saving devices. Ms. Chviek also noted that in her 12 years in the Town of Sterling, she has never heard anyone oppose a cell tower in the Town. (Tr. 1, pp. 11-12)
- 24. MCF would provide space, at no fee, for the Town's emergency communication services. The Town would be interested in locating emergency services (particularly fire) antennas at the site, although specific needs were not discussed. (Applicant 1, p. 11; Tr. 1, pp. 35, 39, 45)

#### **Public Need for Service**

- 25. In 1996, the United States Congress recognized a nationwide need for high quality wireless telecommunications services, including cellular telephone service. Through the Federal Telecommunications Act of 1996, Congress seeks to promote competition, encourage technical innovations, and foster lower prices for telecommunications services. (Council Administrative Notice Item No. 7)
- 26. In issuing cellular licenses, the Federal government has preempted the determination of public need for cellular service by the states, and has established design standards to ensure technical integrity and nationwide compatibility among all systems. Cellco is licensed by the Federal Communications Commission (FCC) to provide personal wireless communication service to Windham County, Connecticut. (Council Administrative Notice Item No. 7; Applicant 1, p. 7)
- 27. The Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services. (Council Administrative Notice Item No. 7)
- 28. The Telecommunications Act of 1996, a Federal law passed by the United States Congress, prohibits any state or local entity from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. This Act also blocks the Council from prohibiting or acting with the effect of prohibiting the provision of personal wireless service. (Council Administrative Notice Item No. 7)

29. In 1999, Congress passed the Wireless Communications and Public Safety Act (the 911 Act) to facilitate and encourage the prompt deployment of a nationwide, seamless communication infrastructure for emergency services. The Applicant's facility would be in compliance with the requirements of the 911 Act. (Tr. 1, p. 53).

#### Site Selection

- 30. Cellco established its search ring in June of 2002, but did not participate in Docket No. 216. (Tr. 1, p. 23)
- 31. Cellco established a circular search ring approximately three-quarters of a mile in diameter. The search ring was centered at 41 degrees 42 minutes 45.7 seconds north latitude and 71 degrees 49 minutes 7.25 seconds west longitude, which is approximately 0.18 miles to the east of the proposed tower location. (Tr. 1, pp. 26-27)
- 32. Prior to selecting the proposed site, the Applicant did not consider any other raw land sites other than the original site in Docket No. 216. Since all of the area around the search ring is owned by the industrial park controlled by the Town and the Industrial Commission, and the top of the hill provides the best RF propagation, no other raw land sites were considered. (Tr. 1, pp. 13, 27)
- There are no existing towers within a two-mile radius of the proposed site. (Applicant 1, Attachment 6)
- 34. The nearest existing structure is the 160-foot smokestack of the Exeter Power Plant located approximately 500 feet to the south of the proposed site. However, the owner was not interested in leasing space to Cellco. (Applicant 1, Attachment 1; Tr. 1, pp. 28, 41)
- 35. There are no equally effective technological alternatives to the proposed facility. Microcells and repeaters would not solve the coverage problem due to the size of the coverage gap and the lack of existing service to repeat. (Applicant 1, p. 10; Tr. 1, p. 27).

#### **Site Description**

- 36. The proposed site is located on a 10.83-acre parcel at the end of Exeter Drive in Sterling. The parcel is owned by the Town. The parcel is located across the street from the Exeter Power Plant. The site location is depicted on Figure 1. (Applicant 1, Attachment 1)
- 37. The Town's Ordinances and Regulations permit telecommunication towers, subject to issuance of a Telecommunications Permit and a Building Permit. Town regulations allow the placement of new telecommunications facilities in industrial areas. (Applicant 1a, pp. 116, 123)
- 38. The proposed tower site is located in the eastern portion of the property, at an elevation of 541 feet above mean sea level (amsl). (Applicant 1, Attachment 1; Tr. 1, pp. 53-54)
- 39. The proposed facility would consist of a 140-foot agl monopole within a 200-foot by 200-foot leased area. The 140-foot tower would be designed to support a total of four levels of antennas with a 10-foot center-to-center vertical separation. The tower would be constructed in accordance with the American National Standards Institute TIA/EIA-222-F "Structural Standards for Steel Antenna Towers and Antenna Support Structures". (Applicant 1, Attachment 1)

- 40. Sprint expressed an interest to MCF in co-locating at the proposed tower, but did not participate in this proceeding. (Tr. 1, pp. 28-29)
- 41. Cingular has a lease with MCF to co-locate at this site, but did not participate in this proceeding. (Tr. 1, p. 28)
- 42. The proposed tower would be expandable to a maximum of 180 feet agl. (Tr. 1, p. 32)
- 43. Cellco would install 12 panel antennas (six cellular and six PCS) on a low profile platform at a centerline height of 137 feet agl. The top of the antennas would reach a height of 140 feet agl. (Applicant 1, Attachment 1, p. 6; Applicant 4, response 2)
- 44. Cellco could also use T-arms if requested by the Council. (Applicant 4, response 2)
- 45. If Cellco were to use flush-mounted antennas, it would require an increase in antenna centerline height of 10 feet to make up for the loss of approximately 2 dB in coverage it would experience. (Applicant 4, response 2)
- 46. A 70-foot by 70-foot equipment compound enclosed by an eight-foot high chain-link fence would be established at the base of the tower. The size of the lease area (200-foot by 200-foot) would be able to accommodate the equipment of four wireless carriers. Verizon would install a 12-foot by 30-foot equipment shelter within the compound. (Applicant 1, p. 3; Applicant 1, Attachment 1)
- 47. Cellco would install a back-up diesel generator inside its equipment shelter. (Applicant 1, p. 3; Applicant 3, response 12)
- 48. No landscaping is proposed by the Applicant. (Applicant 1, Attachment 1)
- 49. For the proposed installation of the access road and compound gravel, approximately 90 cubic yards of cutting of the existing topsoil and loose stone would be required. No fill would be required. (Applicant 3, response 9)
- 50. Access to the proposed site would extend approximately 70 feet from Exeter Drive over a new 12-foot wide gravel driveway to the site compound. (Applicant 1, Attachment 1)
- 51. Utilities would be installed above ground beginning at an existing utility pole on Exeter Drive and would continue west along Exeter Drive for approximately 400 feet. The utilities would then turn to the north and continue approximately 60 feet to the proposed compound. Five new 40-foot wood utility poles would be installed approximately 100 feet apart to support the utilities. (Applicant 1, Attachment 1; Tr. 1, p. 35)
- 52. Until a final geotechnical survey is completed, MCF would not know whether blasting would be required. However, MCF does not anticipate the need for blasting. (Applicant 3, response 10)
- The tower setback radius would extend onto an adjacent Town parcel, east of the site, by 40 feet. The tower setback radius would also extend onto Exeter Drive, south of the site, by 40 feet. (Applicant 1, Attachment 1)
- 54. Cellco would be willing to install a yield point on the tower, as necessary, to prevent the tower from encroaching upon an adjacent Town parcel or Exeter Drive in the event of a tower failure. (Applicant 4, p. 1)

- 55. The nearest property boundary from the proposed tower is approximately 100 feet to the east (Town property). This property is being reserved for future industrial use. (Applicant 1, Attachment 1; Tr. 1, p. 13)
- 56. There are no residences within 1,000 feet of the proposed tower site. The nearest residence is approximately 1,200 feet west of the tower site. The residence is located at 160 Main Street. (Applicant 1, p. 14 and Attachment 1; Tr. 1, pp. 45-46)
- 57. Land use in the surrounding area is industrial to the south and west, and the land to the north is vacant. To the west is residential. (Applicant 1, p. 17; Tr. 1, pp. 45-46)
- 58. The estimated construction cost of the proposed facility is:

Radio Equipment	\$ 450,000.
Tower, Coax and Antennas	\$ 150,000.
Power Systems	\$20,000.
Equipment Building	\$50,000.
Misc. (Site Preparation and Installation)	\$ 119,000.
Total	\$ 789,000.
(Applicant 1, p. 21)	

#### **Environmental Considerations**

- 59. The proposed facility would have no effect upon historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places or upon properties of traditional cultural importance to Connecticut's Native American community. (Applicant 1, Attachment 9)
- 60. There are no known existing populations of federal or state endangered or threatened species, or any state special concern species at the proposed site, based on a review of the Connecticut Department of Environmental Protection Natural Diversity Database. (Applicant 1, p. 20, Attachment 9)
- 61. The site is largely cleared. However, vegetation surrounding the site consists of predominantly red oak with heights up to 65 feet. No trees six-inches diameter at breast height or greater would need to be removed to develop the site. (Tr. 1, pp. 53-54; Applicant 1, Attachments 1 and 8)
- 62. The closest wetland area is approximately 83 feet to the north of the proposed compound. (Tr. 1, p. 55)
- 63. Wetland vegetation consists of red oak, red maple, quaking aspen, gray birch, eastern cottonwood, sassafras, sugar maple, white oak, white pine, highbush blueberry, northern spicebush, green bulrush, and narrow-leaf cattail. (Applicant 1, Attachment 10, p. 2)
- 64. The area between the compound and the wetlands is a significantly disturbed area and consists of gravel fill material. (Applicant 1, Attachment 10, p. 2)
- 65. Utilizing appropriate soil erosion and sedimentation controls would reduce, if not eliminate any risk of impact to the wetlands during construction. (Applicant 1, Attachment 10, p. 4; Tr. 1, p. 55)

- 66. The Applicant would install erosion and sedimentation controls at the site during the construction period in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control. (Applicant 1, p. 18)
- 67. The proposed site is not located within a flood zone. (Applicant 3, response 11)
- 68. The closest airport to the site is Riconn Airport in Greene, Rhode Island, approximately 2.03 nautical miles southeast of the site. Riconn is a private airport. Obstruction marking and lighting of the tower would not be required. (Applicant 3, response 3; Applicant 1, pp. 19-20)
- 69. The floor of the equipment shelter is recessed, creating a bowl-like effect. The floor area is capable of containing 120 percent of all backup generator fluids (fuel and oil) in the event of a leakage or spillage. (Applicant 1, p. 16)
- 70. The maximum power density from the radio frequency emissions of Cellco's proposed antennas for cellular frequencies would be 0.0279 mW/cm² or 4.81% of the standard for Maximum Permissible Exposure, as adopted by the FCC, at the base of the proposed tower. For PCS frequencies, the maximum power density would be 0.0345 mW/cm² or 3.45% of the standard for Maximum Permissible Exposure. The total maximum power density at the tower base resulting from Cellco's antennas would be 8.27% of the standard for Maximum Permissible Exposure. This calculation was based on methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997) that assumes all antennas would be pointed at the base of the tower and all channels would be operating simultaneously. (Applicant 1, Attachment 1; Tr. 1, pp. 58-59)

#### Visibility

- 71. The proposed tower would be visible year-round from approximately 67.2 acres within a two-mile radius of the site (refer to Figure 12). The tower would be seasonally visible from approximately 6.3 acres within a two-mile radius of the site. (Applicant 1, Attachment 8)
- 72. Visibility of the proposed tower from roads within a two-mile radius of the site is presented in the table below:

Road	Length of Road Visibility (Seasonal)	Length of Road Visibility (Year-round)	Nearest Distance with Visibility to Tower
Exeter Drive	0.3 miles	-	0.02 miles north
Church Street		0.4 miles	0.6 miles northeast
Sterling Road	-	0.2 miles	0.5 miles northeast

(Applicant 1, Attachment 8)

73. Visibility of the proposed tower from specific locations within a two-mile radius of the site is presented in the table below:

Location as Marked on Viewshed Map		Visible	Approx. Portion of Tower Visible	Approx. Distance to Tower
Exeter Drive	(1)	Yes	140 feet - unobstructed	0.07 miles northwest
Intersection of Main Street and Industrial Park Road	(2)	No		0.5 miles northeast
River Road	(3)	No	=:	1.0 miles southwest
Sterling Park	(4)	No	-	1.4 miles northwest
Sterling Memorial School	(5)	No	概念	1.6 miles northwest
Riverbend Campground	(6)	No	÷	1.7 miles northwest
Newport Road	(7)	No	( <del>-</del> 1)	1.7 miles northwest
Sterling Hill Historic District & Scenic Portion of Route 14A	(8)	No	-	1.9 miles northeast
Glen Falls Historic Bridge	(9)	No	-	2.0 miles east
Route 14	(10)	Yes	40 feet - unobstructed	1.1 miles northeast
Route 14	(11)	Yes	30 feet - unobstructed	0.7 miles northeast
Church Street	(12)	Yes	30 feet - unobstructed	1.0 miles northeast
Sterling Ridge Lane	(13)	No	·	0.3 miles east
Hungry Hill Road	(14)	No	-	0.4 miles northwest

(Applicant 1, Attachment 8)

- 74. The proposed tower would be visible from approximately 10 residences year-round on Church Street. The tower would also be seasonally visible from two homes in the abutting Sterling Hills subdivision property. (Tr. 1 p. 19)
- 75. The proposed tower would not be visible from Riverbed Campground, located approximately 1.8 miles southwest of the site. (Applicant 1, Attachment 8)
- 76. The proposed tower would not be visible from Sterling Park Campground, approximately 1.3 miles east of the site. (Applicant 1, Attachment 8)
- 77. The nearest scenic road to the site is Route 14A, from Route 49 east to Porter Pond Road, approximately 1.8 miles southwest of the site. The tower would not be visible from this scenic road. (Applicant 1, Attachment 8)
- 78. The nearest historic district is the Sterling Hills Historic District, approximately 1.9 miles southwest of the proposed tower. The proposed tower would not be visible from the historic district. (Applicant 1, Attachment 8)
- 79. The proposed tower would not be visible from the Moosup Valley State Park Trail, approximately 0.4 miles southwest of the proposed site. (Applicant 1, Attachment 8)

#### **Existing and Proposed Wireless Coverage**

80. Cellco transmits in the 869-880 MHz frequency bands for cellular service and in the 1970-1975 MHz frequency bands for PCS service. Cellco operates with a signal level service design of -85 dBm for this area, sufficient for in-vehicle coverage. The signal level threshold for in-building coverage is -75 dBm. (Applicant 3, response 4; Tr. 2, pp. 8)

81. Adjacent Cellco facilities that would interact with the proposed facility are as follows:

Location	Antenna Height agl and Structure Type	Approximate Distance and Direction from Site
Spaulding Hill Road, Plainfield	110 feet - water tank	3.92 miles southwest
548 Green Hollow Road, Plainfield	125 feet – building	3.64 miles northwest
47 Unity Drive, Plainfield	127 feet - building	3.74 miles west

(Applicant 3, response 6)

82. The length of existing coverage gaps (signal strength < -85 dBm) on select roads within a two-mile radius of each proposed site is presented in the table below

Existing Road G	aps*	
Road	Cellular Frequencies	PCS Frequencies
Route 14	3.49	5.63
Route 14A	3.23	3.51
Total	6.72	9.14

<sup>\*</sup>approximate miles; signal strength < -85 dBm (Applicant 3, response 4)

83. The minimum antenna height Cellco is requesting is 137 feet agl. Installing antennas at a centerline height of 137 feet agl would provide coverage to the following roads (refer to Figures 5 and 7):

Road	Cellular Frequencies	PCS Frequencies
Route 14	4.1	2.3
Route 14a	3.5	1.1
Total	7.6	3.4

<sup>\*</sup>approximate miles; signal strength >= -85 dBm (Applicant 1, p. 11)

- 84. Installing antennas at a centerline height of 127 feet agl would not meet Cellco's coverage objectives and would result in coverage gaps in cellular frequencies of 0.2 miles and 0.3 miles along Route 14 and Route 14A, respectively. (Applicant 1, p. 11)
- 85. Installing antennas at a centerline height of 117 feet agl would not meet Cellco's coverage objectives and would result in coverage gaps in cellular frequencies of 0.4 miles and 0.6 miles along Route 14 and Route 14A, respectively. (Applicant 1, p. 11)

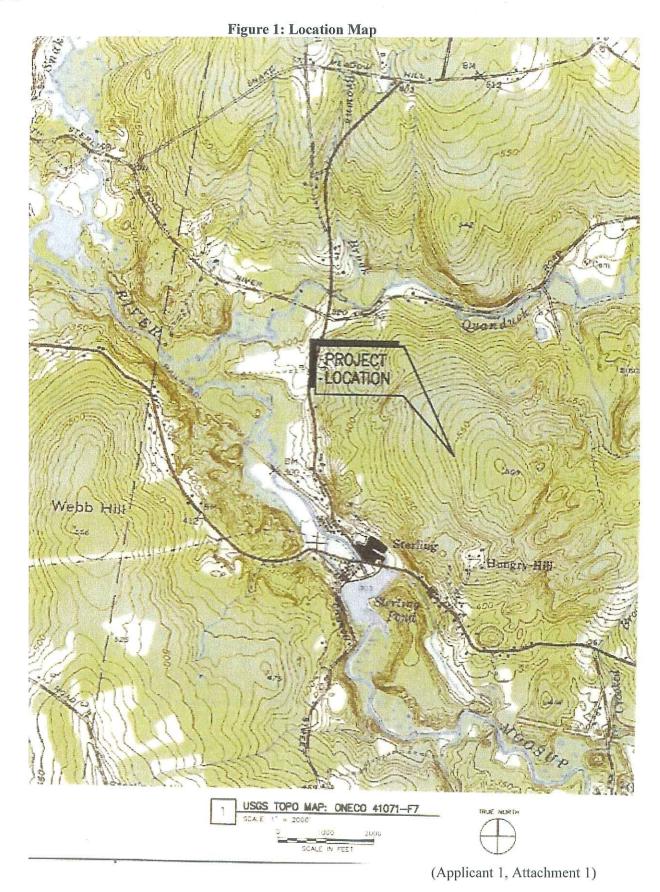
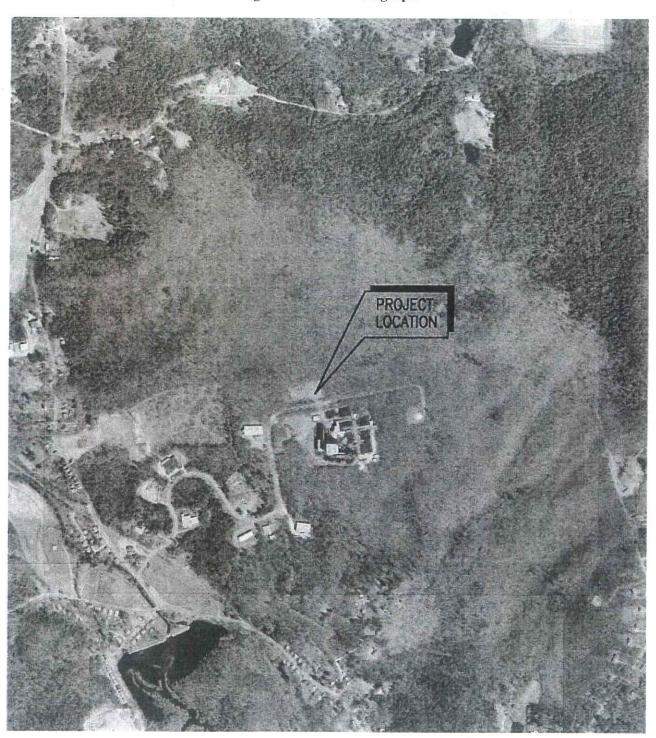
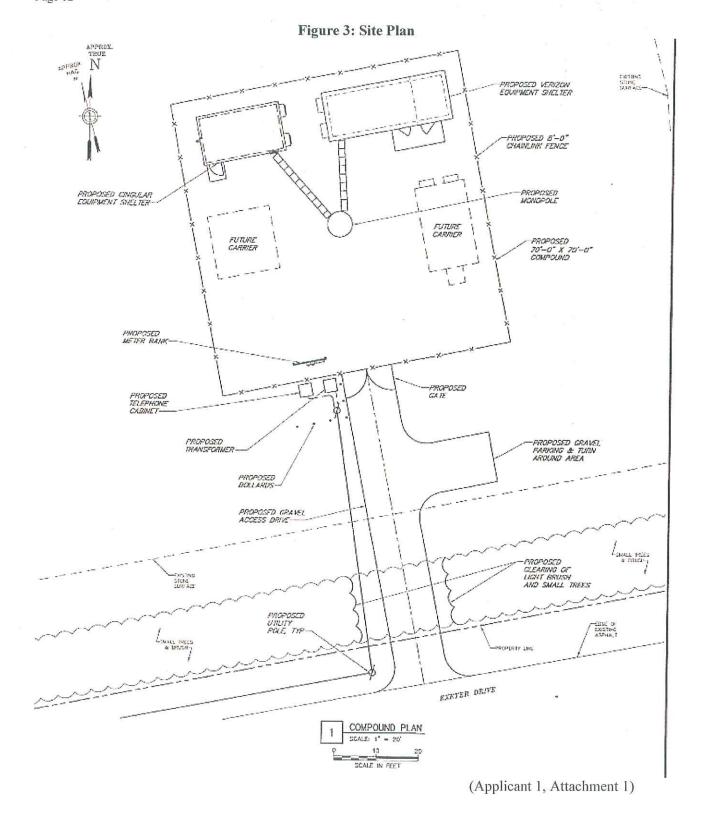
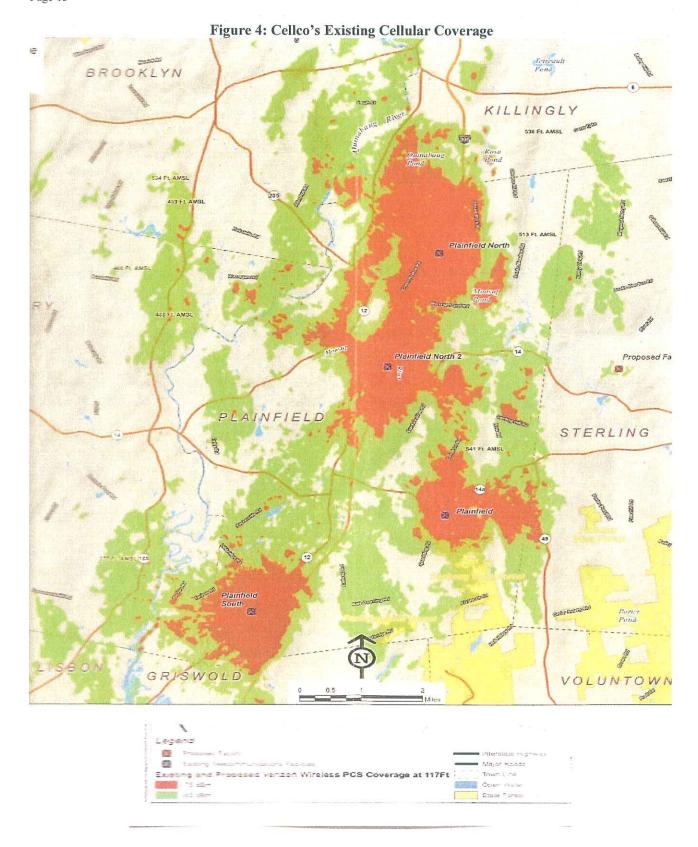


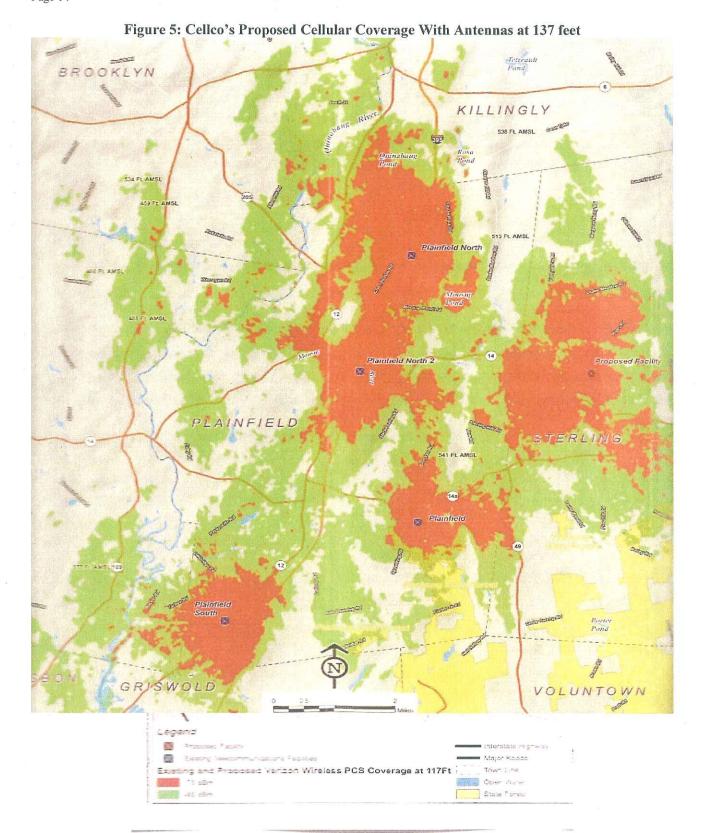
Figure 2: Aerial Photograph

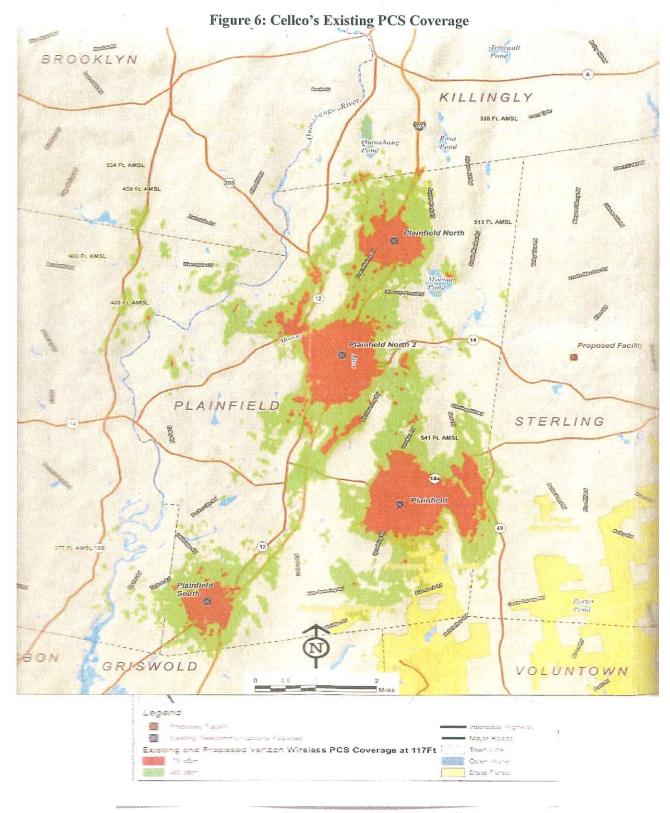


(Applicant 1, Attachment 1)

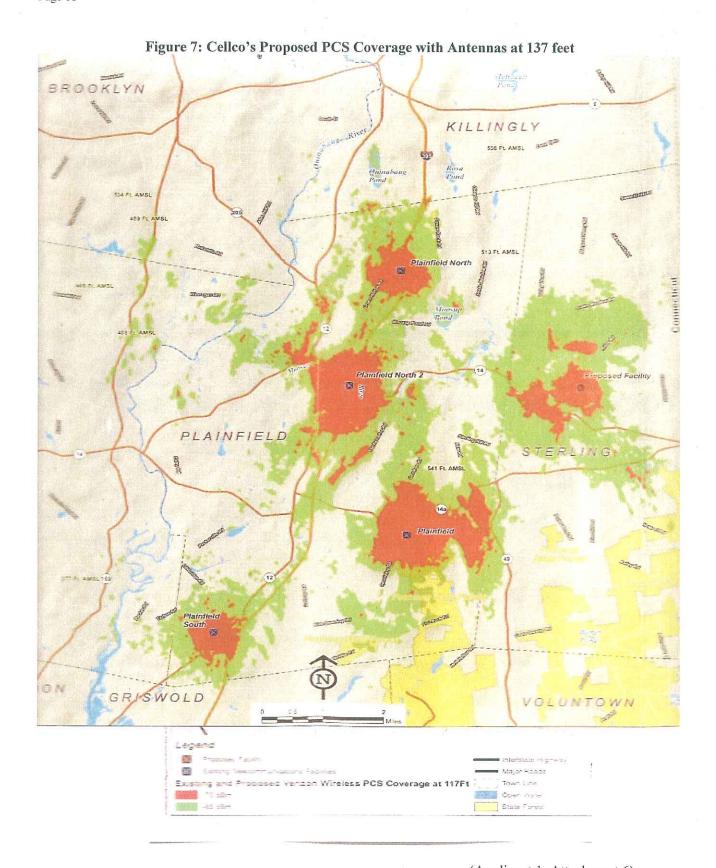


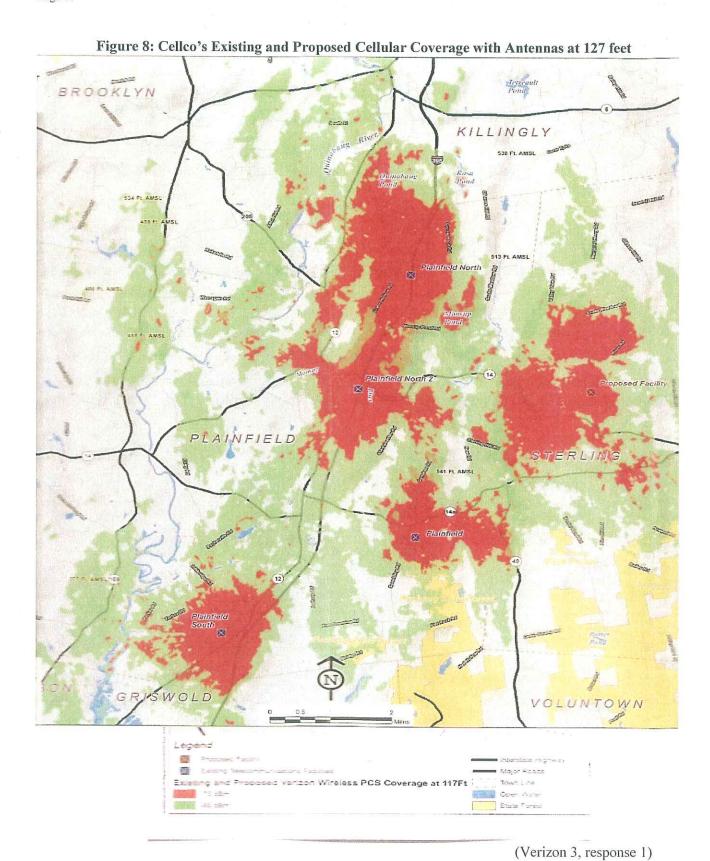


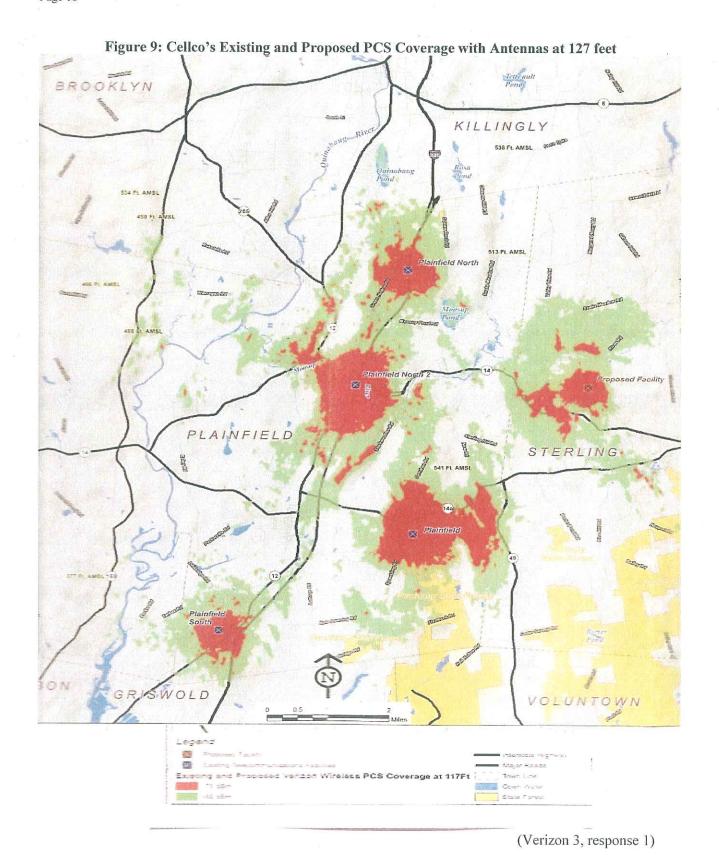


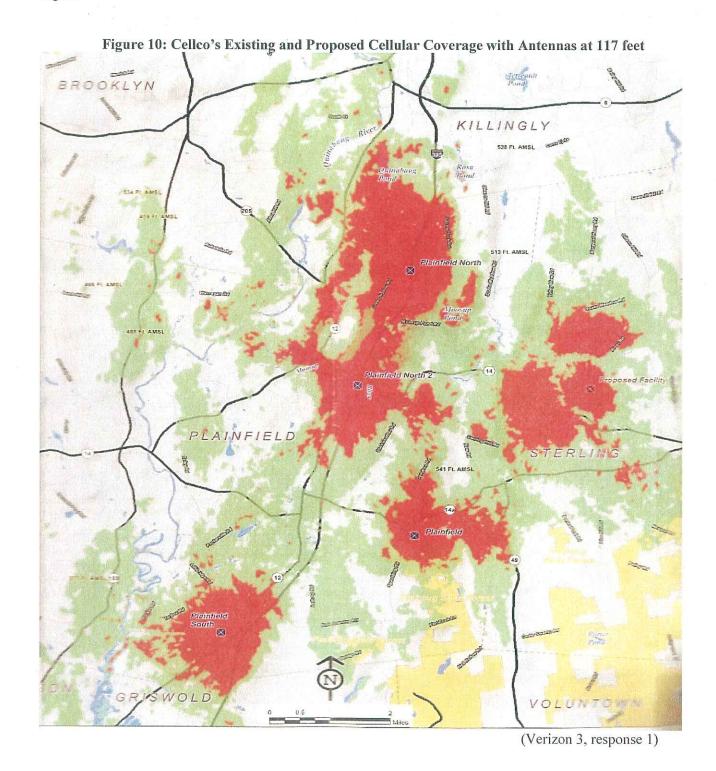


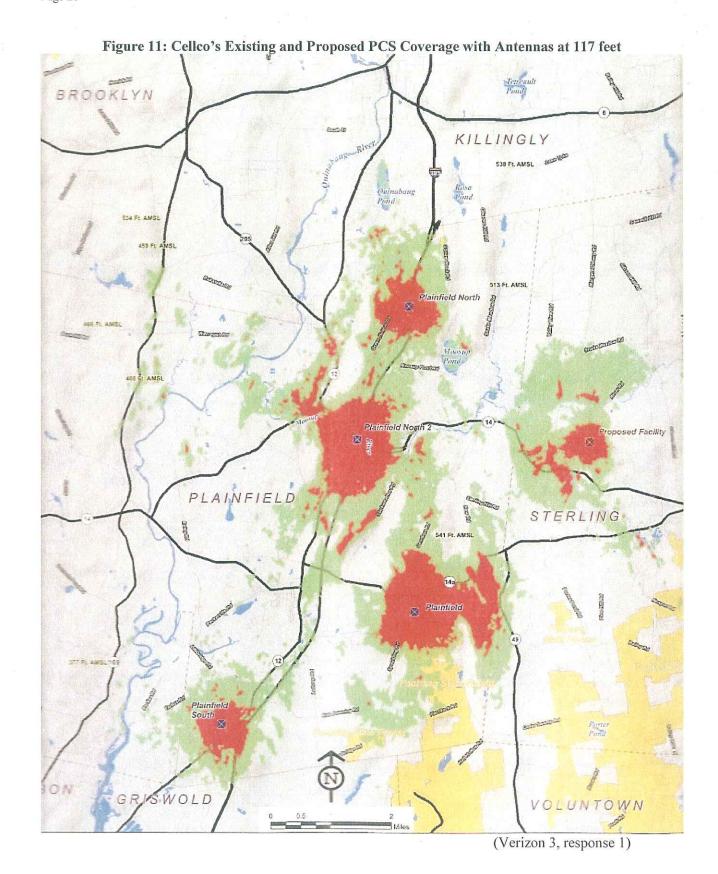
(Applicant 1, Attachment 6)





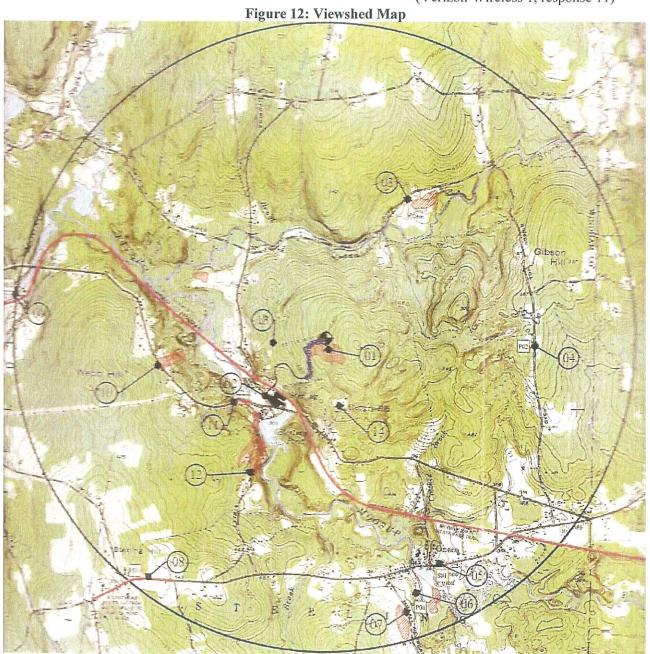






(Verizon Wireless 1, response 11)

(Applicant 1, Attachment 1)



#### Figure 13: Viewshed Map Legend NOTES. 1. Only visible areas are shown on the map utilizing the process described in note 2. The remainder of the map has been estimated to be nonvisible utilizing the process described in note 3. 2. Seasonal and year round areas of visibility were estimated from a field visual analysis within public R.O.W. and public properties. Areas shown on private property were interpolated from the field visual analysis. 3. Nanvisible areas were estimated from a computer generated topography & vegetation unalysis and field verification of vegetation & building screening within public R.O.W and public properties. Vegetation limits were determined from 2004 aerial photos and is assumed to be 65° high. Verification of vegetation height, coverage, and type within private areas not visible from public R.O.W or public properties was not field verified. 4. Hastorical areas were determined from national and state historical registers. 4. Historical areas were determined from national and state bistorical registers. 5. Paris, schools, cemeteries, and churches were determined from street maps and field observations. 6. Seame roads, if any, were determined from the CTEOT list of designated scenic roads and field observations. Legend APPROXIMATE LOCATION COMPUTER SIMULATION OF PROPOSED MONOPOLE PHOTOGRAPH LOCATION APPROXIMATE LIMIT OF SEASONAL APPROXIMATE LIMIT OF YEAR ROUND TOWER VISIBILITY TOWER VISIBILITY C# CHURCH/CEMETERY PA PARK H# HISTORICAL SITE S# SCHOOL TRAIL OR SCENIC ROAD Visibility by Acreage APPROXIMATE ACRES % OF TOTAL AREA 2 MILE RADIUS AREA T VISIBLE DUE TO TOPOGRAPHY 1,845 23% NOT VISIBLE DUE TO VEGETATION 6.134.5 76.1% VISIBLE YEAR ROUND POTENTIAL SEASONAL VISIBILITY 0.1% Distances from Photo Locations to Tower

PHOTO	DIST. (FT)	PHOTO	DIST. (FT)
01	350	10	5,800
02	2,850	11	3,800
03	5,450	12	5,200
04	7.150	13	1,800
05	8,550	14	2,350
06	9,100		
497	9,200		
08	10.050		
09	10,500		

## 2 MILE VIEWSHED ANALYSIS MAP

STERLING VISUAL IMPACT ASSESSMENT

MOF Communications, Inc.

TEXT TURNING STREET, SUITE 105
NORTH ANDOVER, MA 01845
OFFICE: (978) 987-2538
FAX: (978) 288-8850

TUNE 207

TUNE 207

TUNE 207

Section 1887

FIGURE
VS-STERLING

(Applicant 1, Attachment 8)

<b>DOCKET NO. 345 -</b> MCF Communications bg, Inc. and Cellco	}	Connecticut
Partnership d/b/a Verizon Wireless application for a Certificate		
of Environmental Compatibility and Public Need for the	}	Siting
construction, maintenance and operation of a		· ·
telecommunications facility located off Exeter Drive in Sterling,	}	Council
Connecticut.		

February 14, 2008

#### **Opinion**

On August 24, 2007, MCF Communications bg, Inc. (MCF) and Cellco Partnership d/a/b Verizon Wireless (Verizon Wireless) (collectively, the Applicant) applied to the Connecticut Siting Council (Council) for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance and operation of a wireless telecommunications facility to be located in the Town of Sterling, Connecticut. The Applicant is seeking to develop a facility on property owned by the Town of Sterling.

The Applicant proposes to construct a 140-foot monopole on 10.83-acre vacant parcel located off of Exeter Drive in the Sterling Industrial Park. The tower and 70-foot by 70-foot compound would be located in a 200-foot by 200-foot lease area in the southeast corner of the parcel. The equipment compound would be enclosed by an eight-foot high chain-link fence. The 140-foot tower and compound would accommodate the equipment of four wireless carriers. In addition, the tower would be designed to be extendable to 180 feet above ground level. Moreover, this site is located in an industrially-zoned area, which is typically an acceptable area for a telecommunications facility.

Verizon Wireless would install 12 panel antennas on a low-profile platform with a centerline elevation of 137-feet level on the tower. Verizon Wireless would also install a 12-foot by 30-foot equipment shelter within the compound.

While the site is already cleared, it is surrounded by significant vegetative screening. Thus, no landscaping is proposed. Also, no trees six inches diameter at breast height or greater would be removed to construct the facility and proposed access.

The access to the proposed site would extend approximately 70 feet from Exeter Drive over a new 12-foot wide gravel driveway to the proposed compound. Utilities would be installed above ground beginning at an existing utility pole on Exeter Drive and would continue west along Exeter Drive for approximately 400 feet. The utilities would then turn to the north and continue approximately 60 feet to the proposed compound. Five new 40-foot wood utility poles would be installed approximately 100 feet apart to support the utilities.

The tower setback radius would extend onto an adjacent Town parcel, east of the site, by 40 feet. The tower setback radius would also extend onto Exeter Drive, south of the site, by 40 feet. Therefore, the Council will order the inclusion of a tower yield point in the development and management plan to prevent the tower from extending onto the adjacent Town parcel and Exeter Drive in the unlikely event of a tower failure.

Verizon Wireless currently lacks coverage along Route 14 and Route 14A, as well as along local roads in the central portion of the Town of Sterling. Thus, the Council acknowledges the need for a tower for expanded coverage and seamless network design. With antennas installed at a centerline height of 137 feet, Verizon Wireless would accomplish complete coverage along Route

Docket No. 345 Draft Opinion Page 2

14 and Route 14A at cellular frequencies and approximately 41 percent and 31 percent coverage along Routes 14 and 14A, respectively, at PCS frequencies.

The proposed tower would be visible year-round from approximately 67.2 acres within a two-mile radius of the site. It would be seasonally visible from approximately 6.3 acres within a two-mile radius of the site. It would also be visible from approximately 10 residences year-round on Church Street, which is topographically situated on the southwest side of Sterling Pond. The pond does not offer elevation or vegetation to screen the tower. The proposed tower would also be seasonally visible from two homes in the abutting Sterling Hills subdivision property. Other sensitive receptors, such as the Sterling Hills Historic District, Moosup Valley State Park Trail, and a state-designated scenic road (Route 14A) about two miles southwest of the proposed tower would not have views of the proposed tower.

The closest wetland area is approximately 83 feet north of the proposed compound. The area between the compound and the wetlands is a significantly disturbed area and consists of gravel fill material. Utilizing appropriate soil erosion and sedimentation controls is expected to reduce, if not eliminate, any risk of impact to the wetlands during construction. Accordingly, the Council will order that the Applicant install erosion and sedimentation controls at the site during the construction period in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control.

The proposed facility would have no effect upon historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places or upon properties of traditional cultural importance to Connecticut's Native American community. There are no known existing populations of federal or state endangered or threatened species, or any state special concern species at the proposed site.

According to a methodology prescribed by the Federal Communications Commission (FCC) Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997), the combined radio frequency power density levels of the antennas proposed to be installed on the tower have been calculated by Council staff to amount to 8.27 percent of the FCC's Maximum Permissible Exposure, as measured at the base of the tower. This percentage is well below federal and state standards established for the frequencies used by wireless companies. If federal or state standards change, the Council will require that the tower be brought into compliance with such standards. The Council will require that the power densities be recalculated in the event other carriers add antennas to the tower. The Telecommunications Act of 1996 prohibits any state or local agency from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions.

Based on the record in this proceeding, the Council finds that the effects associated with the construction, operation, and maintenance of the telecommunications facility at the proposed site, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with policies of the State concerning such effects, and are not sufficient reason to deny this application. Therefore, the Council will issue a Certificate for the construction, operation, and maintenance of a 140-foot monopole telecommunications facility at Exeter Drive, Sterling, Connecticut.

Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located off Exeter Drive in Sterling, Connecticut.

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February 14, 2008

#### **Decision and Order**

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate, either alone or cumulatively with other effects, when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application, and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to MCF Communications bg, Inc. (MCF) and Cellco Partnership d/b/a Verizon Wireless (Verizon Wireless), hereinafter referred to as the Certificate Holder, for a telecommunications facility at Exeter Drive, Sterling, Connecticut.

The facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

- The tower shall be constructed as a monopole, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of Verizon Wireless and other entities, both public and private, but such tower shall not exceed a height of 140 feet above ground level. The height at the top of the Certificate Holder's antennas shall not exceed 140 feet above ground level.
- 2. Such tower shall incorporate a yield point to eliminate the potential fall radius onto the adjacent property and Exeter Drive.
- 3. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of Sterling for comment, and all parties and intervenors as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
  - a) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line; and
  - construction plans for site clearing, grading, water drainage, and erosion and sedimentation controls consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.
- 4. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of the electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of the electromagnetic radio frequency power density be submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

- 5. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.
- 6. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
- 7. The Certificate Holder shall provide reasonable space on the tower for no compensation for any Town of Sterling public safety services (police, fire and medical services), provided such use can be accommodated and is compatible with the structural integrity of the tower.
- 8. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed and providing wireless services within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline.
- 9. Any request for extension of the time period referred to in Condition 8 shall be filed with the Council not later than 60 days prior to the expiration date of this Certificate and shall be served on all parties and intervenors, as listed in the service list, and the Town of Sterling. Any proposed modifications to this Decision and Order shall likewise be so served.
- 10. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.
- 11. The Certificate Holder shall remove any nonfunctioning antenna, and associated antenna mounting equipment, within 60 days of the date the antenna ceased to function.
- 12. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of site construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction and the commencement of site operation.

Pursuant to General Statutes § 16-50p, the Council hereby directs that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the Norwich Bulletin and The Hartford Courant.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

Docket No. 345 Draft Decision and Order Page 3

The parties and intervenors to this proceeding are:

#### **Applicant**

MCF Communications bg, Inc. and Cellco Partnership d/b/a Verizon Wireless

#### **Its Representative**

Kenneth C. Baldwin, Esq. Robinson and Cole LLP Hartford, CT 06103-3597 (860) 275-8200

Brad Gannon MCF Communications bg, Inc. 733 Turnpike Street, Suite 105 North Andover, MA 01845

Sandy Carter Regulatory Manager Verizon Wireless 99 East River Drive East Hartford, CT 06108

#### **CERTIFICATION**

The undersigned members of the Connecticut Siting Council (Council) hereby certify that they have heard this case, or read the record thereof, in **DOCKET NO. 345** - MCF Communications bg, Inc. and Cellco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a wireless telecommunications facility located off Exeter Drive, Sterling, Connecticut, and voted as follows to approve the proposed site:

Council Members	Vote Cast
Dan Flason Daniel F. Caruso, Chairman	Yes
Colin C. Tait, Vice Chairman	Absent
Commissioner Donald W. Downes	Absent
Designee: Gerald J. Heffernan  Commissioner Gina McCarthy Designee: Brian J. Emerick	Yes
Philip T. Ashton	Absent
Daniel P. Lynch, Jr.	Yes
James J. Murphy, Jr.	Yes
Barbara Currier Bell Dr. Barbara Currier Bell	Yes
Edward S. Wilensky	Absent

Dated at New Britain, Connecticut, February 14, 2008.

STATE OF CONNECTICUT	)
ss. New Britain, Connecticut	:
COUNTY OF HARTFORD	)

I hereby certify that the foregoing is a true and correct copy of the Findings of Fact, Opinion, and Decision and Order issued by the Connecticut Siting Council, State of Connecticut.

S. Derek Phelps
Executive Director
Connecticut Siting Council

I certify that a copy of the Findings of Fact, Opinion, and Decision and Order in Docket No. 345 has been forwarded by Certified First Class Return Receipt Requested mail on February 29, 2008, to all parties and intervenors of record as listed on the attached service list, dated September 13, 2007.

#### ATTEST:

Carriann Mulcahy Secretary Connecticut Siting Council

Docket No. 345 Page 1 of 1

## LIST OF PARTIES AND INTERVENORS $\underline{\text{SERVICE LIST}}$

Status Granted	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Status Granted	(name, address & phone number)	(name, address & phone number)
Applicant	MCF Communications bj, Inc and Cellco Partnership d/b/a Verizon Wireless	Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103-3597 (860) 275-8200  Brad Gannon MCF Communications bg, Inc. 733 Turnpike Street, Suite 105 North Andover, MA 01845  Sandy Carter, Regulatory Manager Verizon Wireless 99 East River Drive East Hartford, CT 06108
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